



COLUMBIA
PHYTOTECHNOLOGY

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USDA NATIONAL
ORGANIC PROGRAM

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August 11, 2005

Arthur Neal
Director, Program Administration
National Organic Program
USDA-AMS-TMO-NOP
1400 Independence Ave., SW. Room 4008
So., Ag Stop 0268
Washington, DC 20250

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Dear Mr. Neal and National Organic Standards Board:

This letter is in reference to the National Organic Program, Sunset Review, Docket number TM-04-07. Columbia PhytoTechnology, LLC supports the continued allowance of the following substance:

| Name of Substance | Location on National List (ie. 205.605(a)) |
|-------------------|--|
| Silicon Dioxide | 205.605(b) |

Reason for continued allowance of silicon dioxide:

Silicon dioxide is diatomaceous earth, a naturally-occurring material composed of the shells of minute, single-celled algae (1). Diatomaceous earth may consist of two types of silicon dioxide, amorphous and crystalline. Synthetic silicon dioxide is produced in such a way that only amorphous/colloidal silicon dioxide is produced with no crystalline silicon dioxide. Crystalline silicon dioxide (found in small amounts in naturally-occurring diatomaceous earth) can cause silicosis and other respiratory diseases. However, amorphous synthetic silicon dioxide is Generally Recognized as Safe (GRAS) as a food additive (2). Synthetic silicon dioxide produced in accordance with current good manufacturing meets purity standards as a food additive. The FDA requires that "silicon dioxide is manufactured by vapor phase hydrolysis or by other means whereby the particle size is such as to accomplish the intended effect" (3). Silicon dioxide is one of four anticaking agents allowed by the FDA for use as an anticaking agent/food additive in foods for direct human consumption. Two of these anticaking agents, (172.490) yellow prussiate of soda and iron ammonium citrate (172.430) are allowed

only as additives in salt. From my research, both silicon dioxide (172.480) and calcium silicate (172.410) are available only as synthetic materials for food grade use.

Because synthetically produced silicon dioxide is naturally-occurring, ubiquitous and chemically inert in the environment, is safe for human consumption, and there appears to be no substitute, I request that it remain on the list of acceptable compounds to be used in organic products. A large amount of our business is organic fruit and vegetable powders. Silicon dioxide is a key ingredient to keep these high sugar powders flowable. Small business' in the USA, such as ours, rely on these high quality organic products as a key part of our business. If we are not able to provide our customers with a free-flowing organic powder, we will not survive as a business.

Sincerely,



Kerry Ringer, Ph.D.
Science Director
Columbia PhytoTechnology, LLC

Cc: Organic Trade Association
National Organic Standards Board

Attachments:

References

Evaluation Criteria for Substances Added to the National List